THE RAMTOP

SEPT/OCT 198

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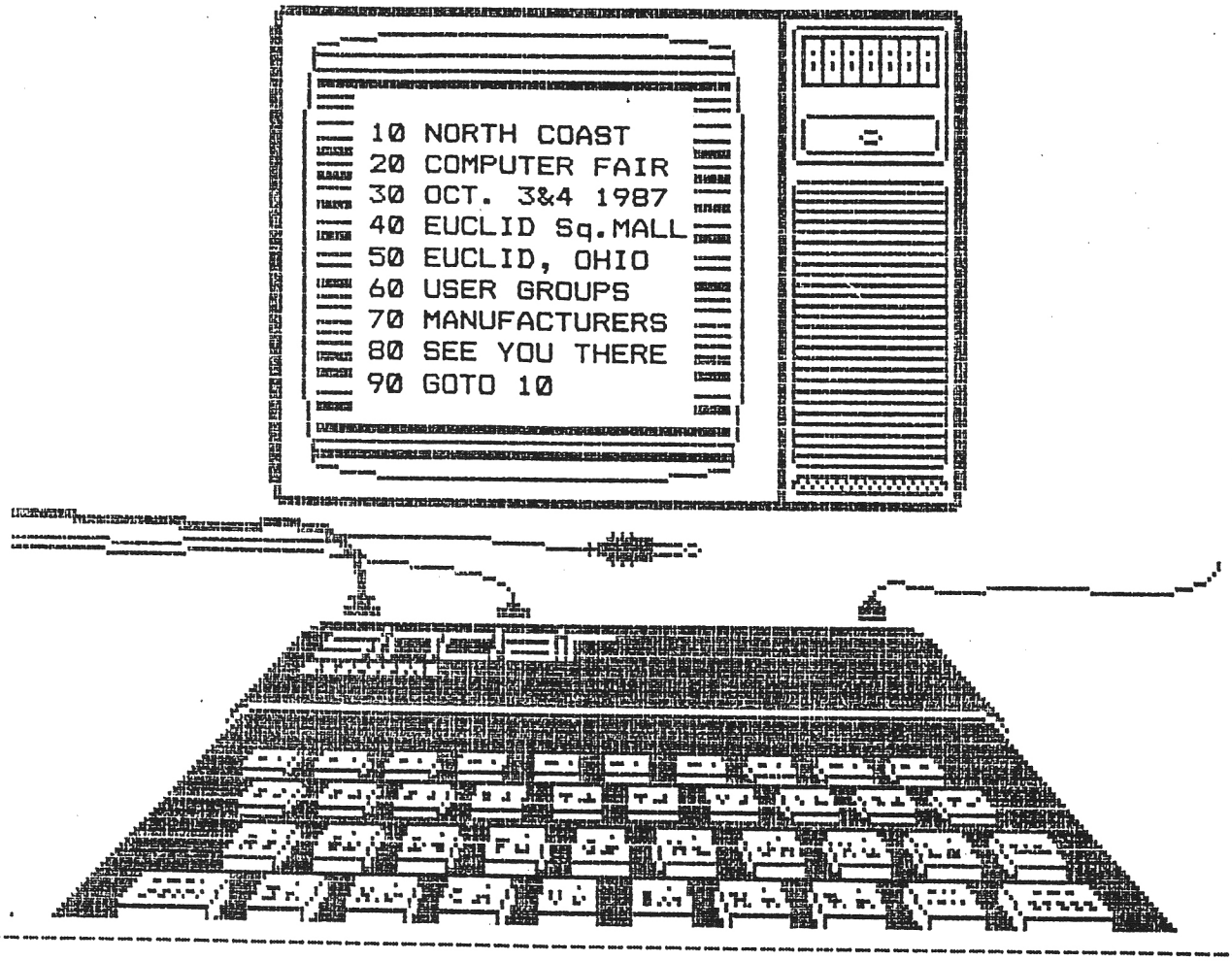


WEST SIDE GROUP MEETS AT LAKEWOOD PUBLIC LIBRARY
15425 DETROIT AVE. LAKEWOOD OHIO 7:00 P.M.
EVERY THIRD FRIDAY EACH MONTH
CONTACT: DICK SIEG (216) 433-4387

EAST SIDE GROUP MEETS AT THE EUCLID SQUARE MALL
IN THE EUCLIDIAN ROOM 7:30 P.M.
EVERY FIRST FRIDAY EACH MONTH
CONTACT: MAX SCHOENFELD (216) 371-1096

A short note to our friends from other newsletters and magazines. You are welcome to use any of our material, news, adds, or programs YOU: (1) Tell where it came from (RAMTOP Cleveland, Ohio) and (2) The author's name that wrote the article. We would appreciate it if you would send us a copy of the newsletter that it appeared in! Unless otherwise notified we will do the same.

THANK YOU FOR YOUR INTEREST IN OUR NEWSLETTER !

Call our NEW BBS! The TIMELINES! See inside for more details.

SYSOP:Bob Parish PHONE:216-671-6922 : 10 PM to 6 AM EST : 8/1/N : 300/1200 Baud

TELECOMMUNICATIONS

TSU BBS OFF THE AIR!

After more than three years of operation Chris Raynak has closed down the TSU-BBS. On behalf of the Greater Cleveland Users Group, I wish to express our thanks to Chris for the many hours and funds he devoted to the establishment and operation of his excellant T/S BBS and wish him well in his future endevours.

New Cleveland T/S BBS:

Bob Parish has opened a new Cleveland T/S BBS to fill the vacancy left by the TSU's closing. The number for this new board is 216-671-6922. Hours are restricted to 10 pm to 6 AM. If interest and traffic warrent it, we will see about extending the hours. But first you must USE IT. Give it a call!

Cleveland Freenet:

Also a reminder that there is a Timex SIG on Cleveland Freenet 216-368-3888. This is a multi user system. To find the Timex SIG, go to the Public Square Section, and then to the Computer Corner. There ar now over 60 items on the SIGS bulletin board. Our thanks to Bob Parish and Dick Seig for keeping a close watch on the SIG this summer.

Youngstown Freenet:

The Youngstown Freenet is now on the air. 216-742-3027. Give our new sister Freenet system a call. Sometime this fall there will be announcement of yet a third system, as the Freenet idea spreads. Also check out the September issue of On Line Access magazine for further Freenet coverage.

Amstrad SIG on Compuserve.

The Compuserve "Club" section, (type "go Club at any menu prompt), which has SIGS for the ZX-81, 2068, Speccy, and QL, has recently added support for the Amstrad machines.

****
AMSTRAD-SINCLAIR-TIMEX RESOURCES
****
news/rumors
hardware software literature
SEPT. 1987 by Andy Kosiorek

MODEM SOFTWARE

Along with MTERM II, and Z-TERM, timexers now have a 1200 baud system available for the 2068, and a 80 column system for the ZX-81 series.

Specterm - 64 developed by Grey and Clifford, will provide 64 columns on the 2068, without the OS-64 cartridge, has full Xmodem features, and will run the 2050 modem, or a 1200 baud modem. However to use the 1200 baud mode, you will need a RS-232 interface card.

For ZX-81, T/S 1000-1500 users, Fred Nachbaur has written ZX-TERM-80. This clever program features 40, 60, or 80 column mode, redefined upper - lower case keyboard, and Xmodem. An additional hardware board is required. Complete details on these two software packages may be found both on the Timelines and Free- Net BBS's.

COMING EVENTS:

CLEVELAND HAMFEST/COMPUTER SHOW
Cuyahoga County Fairgrounds.
Sunday, September 27th.
8AM to 4 PM.
Sponsered by the Cleveland Hamfest Association.
Fleamarket/pragrams/prizes.

NOTHCOAST COMPUTER FAIR.
EUCLID SQUARE SHOPPING MALL
October 3rd and 4th.
Sponsered by the Cleveland T/S Sinclair Users Group and the Euclid Square Mall.
Exhibits by many of the area Computer Clubs, representing all types of home computers, and local computer Venders.

At the Club meeting, Friday nite Oct 2nd, at the Euclid Square Mall, we may have some out of town guests and a discussion about a 1988 Midwest T/S Computer Fest.

At a November or February Club meeting, we will try to schedule some demos of the Amstrad machines.

The PC 8300 Computer

Part 2-Software Use and Compatibility

by Ron Hopkins-Lutz L.I.S.W.

The PC 8300 does not use the Sinclair ROM so there are software compatibility problems. To understand how the machine works with Timex and Sinclair software we need to look at four areas, ROM organization, pre-recorded software, machine language, and BASIC language.

ROM ORGANIZATION

The PC 8300 has a custom ROM that is very similar to the Sinclair ROM but is not directly replaceable by it. The ROM appears to take up more than 8k of memory addresses. Differences are somewhat difficult to figure out as the memory maps and system variables are not listed in the English language manual but only in the Chinese language manual. The Chinese language manual follows the organization of the Sinclair ZX81 and Timex/Sinclair 1000 manuals fairly closely and some differences were apparent after close study.

The ROM is different in three ways:

- Memory organization
- BASIC language internal tokens
- Internal ROM calls

Memory organization differs in that there is a fixed area of screen memory that always starts at the same address in memory where BASIC programs in memory would with a Sinclair ROM. The result is that address of screen memory, size of screen memory, and address of the start of a BASIC program remain fixed, and do not have to be computed. System variables differ in the use of three memory locations, and the addition of a new variable, VERS, which indicates the version of BASIC being loaded by the machine when it loads a tape. The ROM also does not require any POKEs to enable the 32k RAM pack.

BASIC language internal tokens are different. Not only are there new tokens that take into account new commands, but many functions and commands no longer have the same CODE. This has an effect on both BASIC pre-recorded tapes and machine language. These aspects are discussed below.

Internal ROM calls appear to be completely different, both in address and operation, so existing software that makes use of these calls will probably crash the computer.

PRE-RECORDED SOFTWARE

Pre-recorded software will work only if it is pure BASIC with no embedded machine language. The computer translates the numeric tokens on a T/S 1000 or ZX81 tape to it's own equivalents so some rewriting may be necessary in two circumstances.

First, some of the graphics characters are different and some extras have been added to replace some of the regular characters on the T/S 1000 and ZX81. So some graphics screens will need to be edited.

Second, strings that have made use of tokens to save memory may not print the same word. These are minor and easy to spot. It helps if you LLIST the program and compare it to a printed LIST from a T/S 1000 or ZX81. Luckily, the Timex 2040 printer will print the new characters correctly from a PC 8300. (Yes Virginia, even the little race car, spider, and space alien.)

MACHINE LANGUAGE

If you are working from a typed listing you will need to find the equivalent new token for the numeric code you need to put in a REM statement, etc. This is fine if you are using a short routine but I do not recommend doing it if it is a long routine. You will literally go nuts. Some routines will not work properly even if properly translated, due to use of ROM calls or different memory management. In the case of screen memory this can be compensated for by changing the system variable address referred to, but not otherwise.

BASIC LANGUAGE

BASIC on the PC 8300 is fully compatible with any program written in Sinclair BASIC. The opposite is not always true because of new commands. I am just going to list the new commands and what they do, as the manual gives a good explanation to the syntax of each.

BEEP- Turns on the keyboard beeper if it has been turned off, otherwise no effect on operation.

MUSIC- Plays music through the keyboard speaker. Speed is controlled by the TEMPO command. The tune is stored in a string constructed of an alphanumeric code that covers about 3 octaves. This command turns off the screen and suspends other operations while it operates

NOBEEP- Turns off the keyboard beeper if it is turned on, otherwise no effect on operation.

SOUND- Produces sound effects of a given frequency and duration. Screen remains on but nothing else happens until sound stops, unlike the MUSIC command.

TEMPO- Sets the speed of the MUSIC command.

Line No.- This is not a BASIC command as it is available only from a special key on the keyboard. It adds 10 to the current line number and then automatically prints a new line number when programming, thus giving automatic line numbering. It does not renumber. It can be used as a quick way of deleting a block of lines if they are evenly numbered by ten such as 10, 20, 30 or 54, 64, 74.

There are also three commands that only work with the Color Adaptor, PAPER,

INK, and BORDER. They do nothing if implemented without the Color Adaptor. Since the Color Adaptor does not work properly on televisions in the U. S. these commands are useless. (More on the Color Adaptor in the last part of this series.)

CONCLUSION

In general an awful lot of the pre-recorded software will not work as is because of small machine language routines or because they are entirely machine language.

Typed listings may or may not work for the same reason without some translation.

So does that mean your should not buy one of these machines. Not at all. The advantages of the machine itself make it more desirable in use than a T/S 1000 or a ZX81. If you do a lot of programming in BASIC or machine language you will find this machine a joy to use in writing programs and running. The extra features and ability to easily use a joystick, or even a mouse make it very attractive.

Programming is easier since the PC 8300 gives meaningful nonnumeric error messages. Here is a list of the two letter error messages.

AG	invalid ArGument
BK	BreaK key interupted execution
BS	Bad Subscript
IE	Invalid Expression
II	Illegal Input
IR	Integer out of Range
MF	Music string Format incorrect
NA	NAme of program is null string
NF	Next without For
OK	Everything OK-Successful LOAD
OM	Out of Memory
OV	OVerflow (# larger than 10^38)
RG	Return without Gosub
SF	Screen Full
ST	STop statement
UV	Undefined Variable

On the other hand if you primarily use pre-recorded commercial software you may find the hassle of getting it to run not worth the bother.

Physically the machine is a better machine to use than the T/S 1500, but frankly the software compatibility makes the two even as far as desirability. If you have a lot of pre-recorded non-BASIC programs or hybrid programs you may want to get a T/S 1500. If not then definitely the PC 8300.

In the next and final part of this series; the 32k RAM pack and why the Color Adaptor does not work.

Ron Hopkins-Lutz L.I.S.W.

SPACE CANNON

PC8300 16K RAM RON HOPKINS-LUTZ

I FOUND THIS PROGRAM IN THE BEST OF SYNC, VOLUME 1. IT LOOKED LIKE AN IDEAL PROGRAM TO SHOW HOW MUCH SOUND, MUSIC, AND A JOYSTICK COULD ADD TO A SIMPLE PROGRAM ON THE PC8300.

THE SHELL MAKES SOUND IN FLIGHT AND AN EXPLOSION WHEN IT HITS. THE JOYSTICK SETS THE ELEVATION OF THE CANNON AND THE FIRE BUTTON FIRES THE CANNON. WHEN YOU SCORE A HIT THE COMPUTER PLAYS THE FIRST FOUR NOTES OF BEETHOVENS 5TH SYMPHONY TO CELEBRATE YOUR VICTORY.

THE TITLE ABOVE IS ADAPTED FROM THE TITLE SCREEN AND USES THE NEW TRIANGULAR GRAPHICS SHAPES THAT REPLACE THE GRAY SQUARES. I HOPE YOU ENJOY THIS GAME IF YOU HAVE THE PC8300, AND GIVES YOU SOME IDEAS.

CURRENTLY I AM WORKING ON A MAZE GAME AND A MINI WORD PROCESSOR FOR THE 1040 PRINTER AND PC8300. SEND ME A BLANK TAPE AND I WILL SEND YOU A COPY OF THIS PROGRAM IF YOU DO NOT WANT TO TYPE IT INTO THE COMPUTER. (ALTHOUGH TYPING IS CERTAINLY MUCH EASIER ON THE PC8300 THAN IT EVER WAS ON THE T/S 1000.

RON HOPKINS-LUTZ

LISTING 1
=========

```
  1 REM PC8300***********
  2 REM "CANNON"**********
 10 GOSUB 6000
100 REM MAIN**************
120 GOSUB 3000
140 GOSUB 1000
160 LET L=N
180 LET N=((90*(N>45))-(N*(N>45
)))+(N*(N<46))
200 LET L=INT (N*.88)
220 FOR I=1 TO 2*L-1
240 LET J=10+8/3*SIN (1.57*I/L)
260 PLOT I,J
280 SOUND I,100
300 UNPLOT I,J
320 SOUND I,100
340 NEXT I
360 PRINT AT 17,L;"*"
380 SOUND 255,5000
400 IF A<>L THEN GOTO 140
420 PRINT AT 17,L;"0"
440 MUSIC "E<2E<2E<2C<8"
460 PRINT "DIRECT HIT      "
480 GOTO 2000
999 STOP
1000 REM JOYSTICK**********
1010 LET A$=INKEY$
1020 PRINT AT 18,10;"    "
1030 LET N=N+(1*(A$="4"))-(1*(A$
="R"))
1040 LET N=N-(1*(N>88))+(1*(N<2)
)
1050 PRINT AT 18,11;N
1060 IF A$="U" THEN RETURN
1070 GOTO 1010
1999 STOP
2000 REM RE-PLAY***********
2010 PRINT AT 10,0;"PRESS FIRE B
UTTON TO PLAY AGAIN"
2020 PRINT AT 11,0;"PRESS 0 TO 0
UIT"
2030 LET A$=INKEY$
2040 IF A$<>"U" AND A$<>"0" THEN
 GOTO 2030
2050 IF A$="U" THEN RUN
2060 IF A$="0" THEN STOP
2999 STOP
3000 REM INITIALIZE********
3010 LET N=0
3020 LET A=10+INT (RND*20)
3030 CLS
3040 PRINT "SPACE CANNON    RANG
E=";A;"000 M"
3050 PRINT AT 17,0;"▗▄▖.....
.....................▝▀▘"
3060 PRINT AT 17,A;"▟▙"
3070 PRINT AT 18,0;" ELEVATION"
3080 RETURN
3999 STOP
4000 REM SPACE.CANNON******
4010 REM FROM"ARTILLERY.WITH
4020 REM MOTION"IN.THE.BEST.OF
4030 REM SYNC.VOLUME.1.PAGE.14
4999 STOP
5000 REM INSTRUCTIONS******
5010 CLS
5020 PRINT "▀▀▀▀▀▀▀▀ SPACE CANN
ON ▀▀▀▀▀▀▀▀"
5030 PRINT "SPACE CANNON REQUIRE
S A JOYSTICKTO BE PLUGGED INTO Y
OUR PC8300."
5040 PRINT "====================
==========PUSH FORWARD ON JOYS
TICK TO     ELEVATE THE CANNON O
N YOUR SPACETANK, PULL BACK TO D
EPRESS."
5050 PRINT "--------------------
----------ANGLES GREATER THAN
45 DEGREES  WILL BE CONVERTED BY
 THE PC8300."
5060 PRINT "....................
............HOLD FIRE BUTTON TO
FIRE CANNON."
5070 PAUSE 1000
5080 RETURN
5999 STOP
6000 REM INT RODUCTION******
6010 CLS
6020 PRINT AT 1,9;"▗▄▄▄▄▄▄▄▄▄▄▄▄▖
"
6030 PRINT AT 2,9;"▐▄▄▄▄▄▄▄▄▄▄▄▄▌
"
6040 PRINT AT 3,9;"▐
▌"
6050 PRINT AT 4,9;"▐   ▪       ▪
▌"
6060 PRINT AT 5,9;"▐
▌"
6070 PRINT AT 6,9;"▜▙▗▄▖▟▛
▝"
6080 PRINT AT 9,8;"▗▄▄▄▄▄▄▄▄▄▄▄▄▖
▀▀▀▀▀▀▀▀▀▀▀▀▘"
```

```
6090 PRINT AT 10,8;"▒ SPACE CANN
ON ▒"
6100 PRINT AT 11,8;"▒▒▒▒▒▒▒▒▒▒▒▒
▒▒▒▒▒"
6110 PRINT AT 13,1;"DO YOU WANT
INSTRUCTIONS (Y/N)"
6120 LET A$=INKEY$
6130 IF A$<>"Y" AND A$<>"N" THEN
 GOTO 6120
6140 IF A$="Y" THEN GOSUB 5000
6150 RETURN
```

FIGURE 1-INSTRUCTION SCREEN
==========

```
▒▒▒▒▒▒▒▒▒▒ SPACE CANNON ▒▒▒▒▒▒▒▒▒▒
SPACE CANNON REQUIRES A JOYSTICK
TO BE PLUGGED INTO YOUR PC8300.
================================
PUSH FORWARD ON JOYSTICK TO
ELEVATE THE CANNON ON YOUR SPACE
TANK, PULL BACK TO DEPRESS.
--------------------------------
ANGLES GREATER THAN 45 DEGREES
WILL BE CONVERTED BY THE PC8300.
................................
HOLD FIRE BUTTON TO FIRE CANNON.
```

FIGURE 2-PLAYING SCREEN
==========
(SHOWING 2 MISSES AND ALIEN
TARGET. SPACE TANK IS AT LEFT.)

```
SPACE CANNON     RANGE=24000 M


.....*.....*.........X.....
ELEVATION 21
```

This is for the 2068.

```
    1 REM ### "BAUBLES" by Bruce
    2 REM ### & Gabe Schaffer
    3 REM ### Based on Russels'
    4 REM ### "BUBBLES" (SYNC
    5 REM ### 1/84)
    6 RANDOMIZE
    8 BRIGHT 0: BORDER 0: PAPER 0
: CLS
   10 LET x=RND*256: LET y=RND*17
6
   20 LET z=RND*100
   22 IF z>=x OR z>=y OR z+x>=255
 OR z+y>175 THEN GO TO 10
   24 FOR n=1 TO 5: BEEP .008,RND
*25+15: NEXT n
   26 LET ink=INT (RND*6)
   27 IF INT (RND*2)=1 THEN FOR v
=z TO 0 STEP -8: GO TO 29
   28 FOR v=0 TO z STEP 8
   29 BEEP RND*.02,z-30
   30 CIRCLE BRIGHT INT (RND*2);
PAPER ink; INK ink;x,y,v
   32 NEXT v
   35 IF z>55 AND z<60 THEN CLS
   40 GO TO 10
```

Do you need computer cassetes? If you want C-10s or C-20s, you can have them delivered at the meetings. Just give Tom Jennins a call at: 942-4209 Evenings!

Through the last few years our friend JOAN KEALY has stuck with us and sent some mighty good articles! I just wanted to take a few lines to THANK YOU JOAN!

MS review: INTRODUCTION TO 2068 MACHINE CODE by Dr. Lloyd Dreger
Distributed by SMUG, POB 101, Butler, WI 53007--$16.95

I did it! De-hexed a tiny (19 bytes) program, poked it into the right decimal memory, and ran it with perfect success, peeked the memory to see if the miracle was really there, newed and peeked to see the memory was really bare till I did the fabulous feat.

What's that got to do with Dreger's document? Everything! The manuscript says it's written for beginners. He could have added phobics. MC has been intimidating. But Dreger is teaching a freshman class throughout the work; he said get your calculator to convert hex to dec. Jeez, I thought everyone else converted in his head intuitively, perhaps with insight into the occult. It's just math! Not everything was perfectly clear to me, but this is the clearest exposition of MC published.

The manuscript is just that in a heavy-duty folder. It is marred by many typos in the text. Some materials appeared to have been written for other purposes and added for filler--paragraphs on disk drives and modems far afield of MC. Nevertheless, I am grateful to Dreger for a secure background that will permit re-tackling Mazur, Leventhal, and a folder full of MC programs dutifully saved and never fathomed.

Suggestions for a sequel: that notebook of nifty MC modules everyone is supposed to cherish above a diary. That could take years to acquire, but would reap my $16.95 immediately.

--Joan Kealy

Here is our friend: Al Klingler.
He is better known as Big Al the Clown
Al loaned me this tape to digitize.

QoLumn

by Gabe Schaffer

Hello. This month there is a program and a couple of TIPS. I also hear that a few disk drives were purchased for QLs at the COMPUTER FEST, so perhaps someone could offer us some interesting information about that. (My QL was bought at the first FEST in Cincinnati.)

I would appreciate topic ideas and suggestions for short programs for the QoLumn, since longer programs would have to be split up over a period of months. Please see me at one of the meetings, or write to the usual address:

Gabe Schaffer
2599 Saybrook Rd.
Univ. Hts., OH 44118

TIPS

If you turn off or reset your computer while a cartridge is in the drive, the cartridge would not be damaged. If, however, you turn off or reset your computer while the drive is running, the file that is being accessed will be lost.

x x x x x

You should not use your computer while it is very humid (I will try to research exact figures.) The humidity would not damage your computer, but the computer might crash unexpectedly, resulting in a loss of data.

PROGRAM

The program presented here, called *Pangolins*, is from the library tape 2.0, but which I've converted to QL SuperBASIC format. *Save*, *load*, and *print animals* functions were also added. Enter YES or NO at each prompt unless noted otherwise.

```
100 REMark xxx PANGOLINS
110 REMark xxx A BINARY TREE
120 REMark xxx FROM LIBRARY TAPE 2.0
130 REMark xxx CONVERTED TO SuperBASIC
140 REMark xxx by GABE SCHAFFER
150 MODE 4:nq=100:CLS:CSIZE 1,1
160 DIM q$(nq,52),a(nq,2),r$(1):REMark nq=number of questions  q$=questions/answers  a=answer data (second argument is to direct correct branch of tree - goto a(n,1) for yes, a(n,2) for no  r$=one character reply
170 qf=8:RESTORE :POKE_W 163976,256:REMark unchangable CAPS LOCK
180 FOR n=1 TO qf/2-1:READ q$(n),a(n,1),a(n,2):REMark READ questions/answer data
190 FOR o=n+1 TO qf-1:READ q$(o):REMark READ answers
200 pangolins:REMark start main procedure
210 DEFine PROCedure pangolins
220 REPeat Start_playing
230 PRINT 'THINK OF AN ANIMAL':PRINT\\,'Press any key to continue':PAUSE
240 c=1:CLS#0:REMark c=question/answer counter
250 REPeat question_loop
260 IF a(c,1)=0:EXIT question_loop:REMark if answer, exit question loop
270 PRINT q$(c);'?':get_reply:REMark print question and get reply
280 IF r$=='y':in=1:ELSE IF r$=='n':in=2:ELSE END REPeat question_loop
290 c=a(c,in):CLS:END REPeat question_loop:REMark jump to correct question/answer
300 REPeat animal_loop
310 PRINT 'ARE YOU THINKING OF'\' ';q$(c);'?':get_reply:REMark guess animal and get reply
320 IF r$=='y' OR r$=='n':EXIT animal_loop
330 PRINT'ANSWER ME PROPERLY WHEN I AM TALKING TO YOU.':END REPeat animal_loop
340 IF r$=='y':PRINT'I THOUGHT AS MUCH.':again
350 IF qf>nq-1:PRINT'I AM SURE YOUR ANIMAL IS VERY INTERESTING, BUT I DO NOT HAVE ROOM FOR IT JUST NOW.':again:REMark not enough room
360 q$(qf)=q$(c)
370 PRINT\'WHAT IS IT THEN?':INPUT q$(qf+1):REMark get correct animal
380 PRINT\'TELL ME A QUESTION THAT DISTINGUISHES BETWEEN ME
Mark get question to tell the difference between animals
390 PRINT q$(qf)\'AND'
400 PRINT q$(qf+1)
410 INPUT\s$:b=LEN(s$)
420 IF s$(b)='?':b=b-1
430 q$(c)=s$(1 TO b):REMark store animal and question
440 REPeat answer_loop
450 PRINT \'WHAT IS THE ANSWER FOR':REMark get correct answer to question
460 PRINT q$(qf+1);'?'
470 get_reply
480 IF r$=='y' OR r$=='n':EXIT answer_loop
490 PRINT 'THAT IS NO GOOD.':END REPeat answer_loop:REMark bad answer
500 in=1:oi=2:IF r$=='n':in=2:oi=1
510 a(c,in)=qf+1:a(c,oi)=qf:REMark store answer
520 qf=qf+2:PRINT'THAT FOOLED ME':again
530 DEFine PROCedure again
540 REPeat again_loop
550 PRINT\\\'ENTER "S" TO SAVE ANIMALS, "L" TO LOAD ANIMALS, "P" TO PRINT ANIMALS, "Y" TO PLAY AGAIN, OR "N" TO STOP.'
560 get_reply
570 IF r$=='y':CLS:CLS#0:END REPeat Start_playing
580 IF r$=='n':POKE_W 163976,65535:CLS#0:STOP:REMark get back to regular caps mode (to get back to lower, press CAPS K), clear bottom window, and stop
590 IF r$=='s':save_animals
600 IF r$=='l':load_animals
610 IF r$=='p':print_animals
620 CLS:END REPeat again_loop
630 DEFine PROCedure get_reply
```

```
640 r$=INKEY$(-1)
650 kc=KEYROW(0)+KEYROW(1)+KEYROW(2)+KEYROW(3)+KEYROW(4)+KEY
ROW(5)+KEYROW(6)+KEYROW(7):IF kc>0:GO TO 650
660 END DEFine
670 DEFine PROCedure save_animals
680 INPUT#0,'WHAT IS THE NAME OF YOUR FILE?'\s$
690 DELETE 'mdv1_'&s$:OPEN_NEW#3,'mdv1_'&s$:without_trailing
_spaces:PRINT#3,nqns:FOR f=1 TO nqns:PRINT#3,q$(f)\a(f,1)\a(
f,2)
700 CLOSE#3:END DEFine
710 DEFine PROCedure load_animals
720 INPUT#0,'WHAT IS THE NAME OF YOUR FILE?'\s$
730 OPEN#3,'mdv1_'&s$:INPUT#3,nqns:FOR f=1 TO nqns:INPUT#3,q
$(f),a(f,1),a(f,2)
740 CLOSE#3:END DEFine
750 DEFine PROCedure print_animals
760 OPEN#3,ser:without_trailing_spaces:FOR f=1 TO nqns
770 PRINT#3,FILL$('-',60);FILL$('-',3-LEN(f));f;'-------'\q$
(f)\'YES '!a(f,1),'NO '!a(f,2)\:NEXT f
780 CLOSE#3:END DEFine
790 DEFine PROCedure without_trailing_spaces
800 FOR nqns=nq TO 1 STEP -1
810 IF q$(nqns)="":NEXT nqns
820 END DEFine
830 DATA 'DOES IT LIVE IN THE SEA',4,2,'IS IT SCALY',3,5,'DO
ES IT EAT ANTS',6,7,'A WHALE','A BLANCMANGE','A PANGOLIN','A
N ANT'
840 REMark ### If you break program,
850 REMark ### to stop, type POKE_W 163976,65535
860 REMark ### to warm start, type PANGOLINS
870 REMark ### to cold start, type RUN
```

Government Wants to Tax VCR's, Stereos and Tapes

If you have ever heard of the ARRC (Audio Recording Rights Coalition) you know that the recording and motion picture industries want the government to put a royalty tax on recording equipment and blank tape. The tax will be added on to the price of tape recorders and tapes even if they were not intended to be used to rerecord music. If you were to by a cassett recorder and tapes to tape your computer programs, voice, or anything else, you would have to pay the tax anyway. As much as 35% may be put on recorders and $.01 per minute on tapes. They also want to include an anti taping chip built into tape recorders and VCR's and charge us for it. To find out more about and fight this tax, call the ARRC at 1-800-282-TAPE. They can tell you more and send you more information or you can write to ARRC, P O Box 33705, 1145 19th St NW, Washington, D C 20033. Stand up for your rights. By Doug Gillespie

QLs FOR SALE!

128K 32 BIT COMPUTER. INCLUDES 4 SOFTWARE CARTRIDGES FROM PSION, 4 BLANK CARTRIDGES, MANUAL, CABLES, AND POWER SUPPLY. PRICES: $119 FOR GCSUG MEMBERS, $139 FOR NON MEMBERS. CALL DOUG GILLESPIE 216-884-8835. 5860 CALAMIE DR., PARMA HTS., OH, 44130

August/September Editorial

Hi all! Been a long time eh? I bet you have been busy too. I had a real interesting two months. Actually, the last month has been a real PAIN! As most of you know, I built the digitizer about 3 or 4 months ago and it has worked great. I DID have a REAL problem. It was related to the digitizer only in that it connects to another item. (your VCR) Anytime you connect to the outside world you must be careful about GROUND! I was using the digitizer when all the sudden I lost all sync and the screen was nothing but random dots. I shut off the 2068 and checked all connections and powered back up but the screen locked up during the initialization. I removed all extras from the back (with the power off!) and tried it and it was OK. I tried each extra and the problem seemed to be the OLIGER "B" board. I called John Oliger and he was very helpful and sent me out another "B" board and the chips that I didn't have to fix my "B" board. I got the stuff and tried it to no avail. I tried the expansion board with "A" & "B" boards on my spare 2068 and it worked fine. This ment that the problem was in the computer and NOT the Oliger system.

Another call to Oliger put me on the right track and I had 3 chips that might be bad: The Z-80, a 74LS245, and (OH NO!) the SCLD. Since I had a Z-80, I removed the old one and put in a socket and put a Z-80-A from one of the TS-1000s I got from Dean Miller a while back and crossed my fingers and tried it and it WORKED! It's been working fine ever since. I like the new "B" board a lot better since it has no piggy backed chips and no cut traces ECT.

I tested the cables and found that I had a 25 volt difference in the grounds form my VCR and my 2068. This is mostly due to the fact that I have an old house that has the knob and tube wiring with no ground. I turned a few plugs around and made up a new cable to the VCR to temporarily fix the problem. I plan to put in a new line back to the breaker box to solve this problem for good.

The moral of the story is that if you are using a computer of ANY type and connecting it to other equipment such as TVs, Printers other than the 2040, or ANY other peripheral, BE SURE THAT YOU HAVE A GOOD GROUND!

A LOOK AT FIDO NET

At the Indianapolis show some of you may have heard talk about something called FIDO NET. Essentially FIDO is a system of local BBS's which are netw orked by packet radio. Messages on one board is relayed to another and so on until their destination is reached . FIDO also varies from such services as COMPUSERVE, GENIE or the SOURCE in that there are no connect charges. Some FIDO boards do charge users a minimal fee to send a message (usually under $1.00). FIDO also has SIG like interest areas which are Echoed on all boards across the country. So if you leave a message concerning a topic on your local FIDO you may get an answer from someone else in another part of the country left on his local FIDO. You see the reply because the entire data base is continually compiled updated at a central location in the network. FIDOS have a large data base of files covering everything from a list of Government BBS's to the definitive compilation of light bulb jokes.

In 1984, The first FIDO was established in the SAN-FRANCISCO area and soon network was begun with an east coast BBS using the same software. Today there are more FIDOS than you can conveniently imagine . There is probably one near you. The network is organized into NETS and NODES. The NET is a region and the node is the individual number, these are often displayed with a slash between the two numbers.

Here is a short list of local FIDOS in NET 157. Auer Register, Cleveland; Micro Chip BBS, Brunswick; PC-OHIO II, Cleveland; PMS, Akron; NEOH PC CLUB, Rocky River; Kent Public Schools, Kent; Mud Puppy Opus, Girard; Equity Link, N. Canton; Hamnet, Akron; The Life Line, Cleveland; Family Radio Forum, Cuyahoga Falls; Liberty BBS, Stow; Appleholic's BBS, Hinckley; Cyberdyne Systems, Independence; U of Akron, Akron; CHIPS, Akron; NEO APPLE, Cleveland; NEO APPLE, Akron. You should be able to get the telephone #'s for these boards from your friendly neighborhood BBS. If you want to leave me a message send it to me at 157/697.

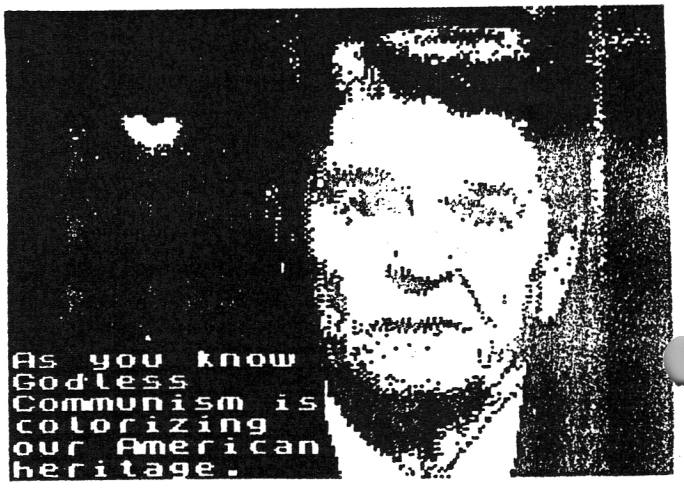
THOMAS SIMON

Here are a few screen$ from my digitizer. If you are interested in building one, please refer to the last issue of the RAMTOP. You will also need to use a VCR that has a good pause. If you would like YOUR picture in the RAMTOP, let me borrow a vidio tape (VHS) and I will digitize it.

QL and Modem Groups

I am interested in reorganizing the QL special interest group. There are new QL owners in the group and if you have one, I'm sure you want to learn about it as much as I do. Since I don't know much about the QL, I wouldn't be the best person to organize the group. We need someone to organize the group but if no one else will I will try. Maybe we can combine our information.

I'd also like to reorganize the modem group but I also don't know much about modems, so we need someone for that too. by Doug Gillespie



Have you ever wanted to have a nice simple program to load in a screen and have a choice of printing it out on your 2040 or on your 80 column printer in two different sizes. Now add to this the ability to load from tape and save to disk or form disk to tape. While we are at it, we might as well add in some disk functions and an option to load (in my case) the digitizer software. If you like this idea, here is a program for you. It is designed around the Oliger system but if you have a different system it can easily be changed. I will also be improving it.

James G DuPuy

```
  10 CLEAR 57000
  20 LOAD /"ZCODE"CODE
  25 LET /p=t
  30 BORDER 1: PAPER 7: INK 0: C
LS
  50 PRINT AT 0,10;"* MAIN MENU
*"
  60 PRINT '"1 - LOAD A SCREEN F
ROM DISK"
  70 PRINT '"2 - LOAD A SCREEN F
ROM TAPE"
  80 PRINT '"3 - LOAD A SCREEN F
ROM DISK AND      SAVE TO TAPE"
  90 PRINT '"4 - LOAD A SCREEN F
ROM TAPE AND      SAVE TO DISK"
 100 PRINT '"5 - DISK FUNCTIONS"
 105 PRINT '"6 - LOAD DIGITIZER
SOFTWARE"
 110 PRINT '"After loading a scr
een, press:  1- MENU, 2- 2040 CO
PY           3- SMALL COPY 4- LA
RGE COPY"
 120 PRINT "PLEASE NOTE THAT SG-
10 MUST BE  SET FOR SG-10 MODE A
ND MANUAL    LINE FEED.(DIP)"
 190 PAUSE 0: LET a$=INKEY$
 195 IF INKEY$<>"" THEN GO TO 19
5
 200 IF a$<"1" OR a$>"6" THEN CL
S : PRINT FLASH 1;AT 10,10;"1 TO
 5 ONLY!": PAUSE 100: GO TO 30
 210 LET a=VAL a$*1000
 220 GO TO a
1000 REM LOAD FROM DISK
1010 CLS
1015 RANDOMIZE USR 64000
1020 INPUT "ENTER SCREEN NAME: "
;S$: IF LEN S$<1 OR LEN S$>10 TH
EN PRINT AT 21,0;"1-10 CHARACTER
S ONLY!": PAUSE 100: GO TO 1020
1030 LOAD /S$SCREEN$ : GO SUB 70
00
1040 GO SUB 7000
1050 GO TO 1040
2000 REM LOAD FROM TAPE
2010 CLS
2015 RANDOMIZE USR 64000
2020 INPUT "ENTER SCREEN NAME: "
;s$
2030 LOAD s$SCREEN$
2040 GO SUB 7000
2050 GO TO 2040
3000 REM SAVE TO TAPE
3010 CLS
3020 INPUT "ENTER DISK SCREEN NA
ME: ";D$: IF LEN D$<1 OR LEN D$>
10 THEN GO TO 3020
3025 IF INKEY$<>"" THEN GO TO 30
25
3030 INPUT "ENTER TAPE NAME OR P
RESS ENTER  TO USE SAME NAME: ";
T$: IF LEN T$>10 THEN GO TO 3030
3040 IF T$="" THEN LET T$=D$
3050 LOAD /D$SCREEN$
3060 SAVE T$SCREEN$
3070 INPUT "PRESS ENTER FOR MENU
 OR ""V"" AND ENTER TO VERIFY.";
Z$
3080 IF Z$="v" THEN VERIFY t$SCR
EEN$
3090 GO TO 30
4000 REM SAVE TO DISK
4010 CLS
4020 INPUT "ENTER TAPE NAME: ";T
$: IF LEN T$>10 THEN GO TO 4020
4030 INPUT "ENTER DISK SAVE NAME
: ";D$: IF LEN D$<1 OR LEN D$>10
 THEN GO TO 4030
4040 LOAD T$SCREEN$
4050 SAVE /D$SCREEN$
4060 GO TO 30
5000 REM DISK FUNCTIONS
5010 CLS : PRINT AT 2,5;"** DISK
 FUNCTIONS **"
5020 PRINT '"1 - CATALOG TO SCR
EEN"
5030 PRINT '"2 - CATALOG TO 2040
"
5040 PRINT '"3 - FORMAT A DISK"
5050 PRINT '"4 - CHANGE SCREEN N
AME ON DISK"
5055 PRINT '"5 - BACK TO MAIN ME
NU"
5060 LET A$=INKEY$
5070 IF INKEY$<>"" THEN GO TO 50
70
5080 IF A$="1" THEN CAT : PAUSE
0: GO TO 5000
5090 IF A$="2" THEN RANDOMIZE US
R 64003: OPEN #2,"P": CAT : CLOS
E #2: GO TO 5000
5100 IF A$="3" THEN GO TO 5200
5110 IF A$="4" THEN GO TO 5400
5115 IF A$="5" THEN GO TO 30
5120 GO TO 5060
5200 REM FORMAT A DISK
5210 INPUT "ENTER DISK NAME: ";D
$: IF LEN D$<1 OR LEN D$>16 THEN
 GO TO 5210
5220 LET /T=42: FORMAT /D$
5230 GO TO 5000
5400 REM CHANGE NAME
5410 INPUT "ENTER PRESENT NAME:
";D$: IF LEN D$<1 OR LEN D$>10 T
HEN GO TO 5410
5420 INPUT "ENTER NEW NAME: ";N$
: IF LEN N$<1 OR LEN N$>10 THEN
GO TO 5420
5430 RESTORE /D$SCREEN$ TO N$
5440 GO TO 5000
6000 REM LOAD DIGITIZER SOFTWA
6010 LOAD /"EYBYNI.B1"
6090 STOP
7000 REM KEY DELAY
7010 PAUSE 0: LET Z$=INKEY$
7020 IF INKEY$<>"" THEN GO TO 70
20
7500 REM KEY ACTION
7520 IF z$="s" THEN RANDOMIZE US
R 64006
7530 IF z$="l" THEN RANDOMIZE US
R 64009
7540 IF z$="t" THEN RANDOMIZE US
R 64003: COPY : LPRINT ': RANDOM
IZE USR 64000
7550 IF z$="m" THEN GO TO 30
7560 RETURN
8000 STOP
9999 SAVE /"ZPRINT" LINE 10: SAV
E /"ZCODE"CODE 64000,1300
```

Here is a letter from PETE FISCHER

Hello James,

I'm writing this to you for possible inclusion in RAMTOP. This will be an update on Version 2.0 of the GUIDE.

Just before I published the GUIDE, there were 2 boards down which have since come back up. These are TIME WARP and VSYS. TIME WARP, as you recall, is run by sysop Jim Rodlin and was formerly running on Jim's own software , a rewrite of TINYBOARD. It is now up on CASEBOARD software. It's a part time system, available from 11 pm to 7 am EST at (617) 481-2155 (8-1-N). I wrote to Joe Newmann asking about his BBS, but when he replied, he forgot to include that information. But as far as I know its up, part time.

Then there are a flock of new boards, one of which I mentioned only the number in the GUIDE, DOWNLOADER'S ANONYMOUS. This is our first listed CANADIAN board, located in Toronto, and used by the members of the Toronto T/S USERS CLUB. It has both a T/S specific message base and T/S file section. It is run on an IBM using an update of Fido software called OPUS. It is on the net, although I have no NET/NODE #'s. Apparently 24 hours, it can be reached at (416) 844-2035. It represents an excellent opportunity to promote some International Brotherhood.

Another new board is TCCS in Upstate New York. This is used by the SINCUS group, and has also both a T/S message base (at last) and a T/S file section. Its also a part time board, from 8 am - 11 pm Eastern Time at (607) 785-2118. This is run on "P C Board" software.

Then there's the BBS of the Central Florida User Group at (305) 677-9623. This is also a rewrite of TINYBOARD so you need 7-1-E parameters. Also a part time system, from 6 pm to midnight Eastern time on WEDNESDAY NIGHTS ONLY. Another new board you've probably already heard about is SINCLAIR AT NIGHT, which is run by Mark Fendrick at (718) 627-1293 from 11 pm to 6 am Eastern Time. A brand new board I just heard about is a T/S sub-board on a system called "FLASH! BBS" in LAS VEGAS at (702) 644-6910. Its apparently 24 hours and 8-1-N, and it has no file section so far. Also of note is that the TIMEX <X> CHANGE BBS, (213) 329-3922 has added a special RLE file section. Last I heard it was quite a selection.

Of course you also know about the 2 new terminal programs available, one for the 1000 and one for the QL. The first is called ZX-TERM$80, and according to Ed Grey's reports, its FAN-TASTIC. It is written by Fred Nachbour and available from his company, SILICON MOUNTAIN SOFTWARE. Write for a free catalog, C-12, Mountain Station Group Box / Nelson, BC, V1L 5P1 / CANADA. The second is called Q-LINK and has both ASCII and XMODEM protocals as well as an internal editor. It sells for $19.95 + $2 s & h from META MEDIA PRODUCTIONS / 726 W 17th / Vancouver, BC / V52 1T9 / CANADA.

Well, I hope things have settled down for you after the FEST. My life has been a state of continuous madness since January. Today I learned that the local phone company will be referring my $500 bill to a collection agency. I was cut off over 2 months ago. Such is life.

I am very interested in finding out more about RAMTOP. What is its current circulation for example. Also, how many issues have so far been published and are they available for someone who wanted reprints. I am hopefully writing an article about all the newsletters, and so I need the info.

I hope you got some good use out of the GUIDE you bought from me at the FEST, James. If you have any feedback on it, I'd love to hear it. Thanks for your help. Adios, Phoenix Pete!

Here is a program that will convert a ZTERM file back into TASWORD file. It will be handy when you want to format a file o print in a different font. It is set up to use the Oliger dis system but can easily be changed to use just tape or anothe disk system.

James G.

```
  10 REM "CONVERT" convert ZTERM
 file to TASWORD FILE.
  11 REM WRITTEN BY JAMES G.
DUPUY  4-19-87
  15 PAPER 7: INK 0: BORDER 1: C
LS
  16 CLEAR 29000
  17 LOAD /"CONMC"CODE
  20 PRINT "PLAY the tape header
 to get the file name and data l
ength."
  30 GO TO 9970
  40 LET T=30000: LET Z=47000: L
ET C=0: LET LZ=Z+8: LET LT=0
  45 PRINT "REWIND AND PLAY"
  55 LOAD ""CODE 47000
  80 INPUT "LINE LENGTH?:";CT: I
F CT>64 THEN GO TO 50
  90 PRINT AT 17,0;"TASWORD FILE
 LENGTH:"
  95 PRINT AT 18,0;"CURRENT ZTER
M BYTE :"
 100 REM START OF LOOP
 110 LET C=C+1
 120 IF C>CT THEN GO TO 1000
 140 IF PEEK Z=13 OR PEEK Z=10 T
HEN GO TO 2000
 150 IF PEEK Z<32 OR PEEK Z>122
THEN POKE T,32
 170 POKE T,PEEK Z
 180 LET T=T+1: PRINT AT 17,20;T
-30000
 190 LET Z=Z+1: PRINT AT 18,20;Z
-47000
 200 IF Z<=LZ THEN GO TO 100
 210 FOR j=-1 TO 64: POKE t+j,3
: NEXT j
 500 REM SAVE ROUTINE
 505 INPUT "CHANGE FILE NAME?(Y/
N):";X$: IF x$="y" THEN INPUT "E
NTER NEW NAME:";N$
 510 INPUT "INSERT FORMATED DISK
, PRESS     ENTER WHEN READY. ";
X$
 520 SAVE /N$CODE 30000,T-30000
 530 STOP
1000 REM FORMAT LINE
1010 IF C=65 THEN LET C=0: GO TO
 110
1020 IF C<64 THEN POKE T,32: LET
 T=T+1: LET C=C+1: PRINT AT 17,0
;c;" ": GO TO 1020
1030 POKE t,32: LET t=t+1: LET C
=0: GO TO 100
2000 REM START NEW LINE
2010 IF PEEK Z=13 THEN LET Z=Z+1
: GO TO 1000
2020 LET Z=Z+1: GO TO 140
9970 LET n$=""
9975 PRINT '''''"LOAD A TAPE AND
PRESS ""PLAY""""'
9982 RANDOMIZE USR 64000
9983 LET a=64060: LET b=PEEK a:
LET s=b
9985 IF B<3 THEN PRINT "THIS IS
NOT A FILE!": STOP
9987 PRINT "FILE NAME: ";
9988 FOR a=64061 TO 64070: LET b
=PEEK a: LET N$=N$+CHR$ B: PRINT
 CHR$ b;: NEXT a: PRINT
9989 LET b=PEEK a+256*PEEK (a+1
: PRINT "DATA LENGTH: ";b
9990 LET a=a+2: LET C=PEEK a+256
*PEEK (a+1): IF s=3 THEN PRINT "
START ADDRESS: ";C
9992 GO TO 40
9999 CLEAR : SAVE /"CONVERT" LIN
E 1: SAVE /"CONMC"CODE 64000,53
```

If you would like to subscribe to the RAMTOP please fill out this form and send it to the listed address along with a check for: $15/Year or $7.50/ 6 mo. to become a member of our Group (Attend meetings, use library tapes Ect.) Please make checks payable to the RAMTOP! (The phone # is only for our records!) This INCLUDES useage of our TIMELINES BBS! (216-671-6922, 8-N-1) Times of useage are 10PM to 6AM (EST) 7 days a week.

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Thank You for your support of our group!

****

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* phone # is REQUIRED! *

* ADDRESS _____ *

* CITY _____ STATE _____ ZIP _____ *

* TYPE OF COMPUTER YOU OWN: 1000/ZX-81 __ /1500 __ /2068 __ *
* check all that you have : QL __ OTHER _____ *

* Do you have a DISK system: (type)_____ *
* Plese note that we request that the form be filled out as *
* completely as possible. *

****

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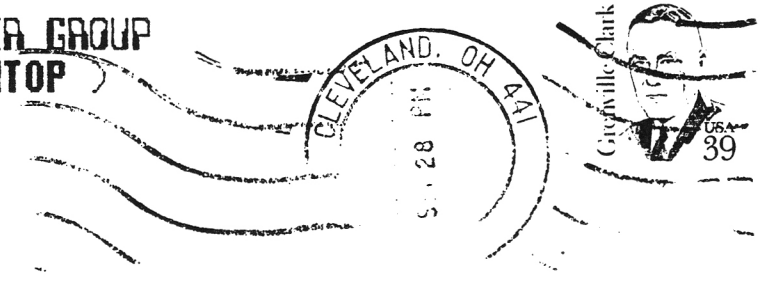
14

From:
THE GREATER CLEVELAND SINCLAIR USER GROUP
JAMES G. DUPUY (EDITOR OF THE **RAMTOP**)
6514 Bradley Ave. (DOWN)
Parma, Ohio 44129



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TO:

87/05/16

Kaczor, Jon
4568 Williamston Ave.
Brooklyn, OH
44144

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